## CLAIMS

## What is claimed is:

- A method comprising: setting an operating voltage supplied to a processor based on a mode of operation of said processor.
- 2. The method of claim 1, comprising determining an actual mode of operation of said processor, wherein setting comprises setting said operating voltage based on said actual mode of operation.
- 3. The method of claim 2, wherein determining comprises sensing a level of power supplied to said processor.
- 4. The method of claim 1, comprising receiving a signal indicating an anticipated mode of operation of said processor, wherein setting comprises setting said operating voltage based on said signal.
- 5. The method of claim 1, comprising reducing said operating voltage when said mode of operation is a sleep mode.
- 6. The method of claim 2, comprising reducing said operating voltage when said actual mode of operation is a sleep mode.
- 7. The method of claim 4, comprising reducing said operating voltage in response to said signal when said anticipated mode of operation is a sleep mode.
- 8. The method of claim 4, comprising increasing said operating voltage when said signal indicates that said processor is about to go out of sleep mode.

Attorney Docket No.: P-6641-US

9. An apparatus comprising:

a controller to set an operating voltage supplied to a processor based on a mode of operation of said processor.

10. The apparatus of claim 9, wherein said controller is able to determine an actual mode of operation of said processor and to set said operating voltage based on said actual mode of operation.

11. The apparatus of claim 10, wherein said controller is able to sense a level of power supplied to said processor.

12. The apparatus of claim 9, wherein said controller is able to receive a signal indicating an anticipated mode of operation of said processor and to set said operating voltage based on said signal.

13. The apparatus of claim 9, wherein said controller is able to reduce said operating voltage when said mode of operation is a sleep mode.

14. The apparatus of claim 10, wherein said controller is able to reduce said operating voltage when said actual mode of operation is a sleep mode.

15. The apparatus of claim 12, wherein said controller is able to reduce said operating voltage in response to said signal when said anticipated mode of operation is a sleep mode

16. The apparatus of claim 12, wherein said controller is able to increase said operating voltage when said signal indicates that said processor is about to go out of sleep mode.

17. A wireless communication device comprising:

a processor;

a controller to set an operating voltage supplied to said processor based on a mode of operation of said processor; and

- a dipole antenna to send and receive wireless communication signals.
- 18. The wireless communication device of claim 17, wherein said controller is able to determine an actual mode of operation of said processor and to set said operating voltage based on said actual mode of operation.
- 19. The wireless communication device of claim 18, wherein said controller is able to sense a level of power supplied to said processor.
- 20. The wireless communication device of claim 17, wherein said controller is able to receive a signal indicating an anticipated mode of operation of said processor and to set said operating voltage based on said signal.
- 21. The wireless communication device of claim 17, wherein said controller is able to reduce said operating voltage when said mode of operation is a sleep mode.
- 22. A wireless communication system comprising:
  - a first wireless communication device; and
  - a second wireless communication device comprising:
    - a processor;
    - a controller to set an operating voltage supplied to said processor based on a mode of operation of said processor; and
    - a dipole antenna to send and receive wireless communication signals.
- 23. The wireless communication system of claim 22, wherein said controller is able to determine an actual mode of operation of said processor and to set said operating voltage based on said actual mode of operation.
- 24. The wireless communication system of claim 22, wherein said controller is able to receive a signal indicating an anticipated mode of operation of said processor and to set said operating voltage based on said signal.

Attorney Docket No.: P-6641-US

- 25. A machine-readable medium having stored thereon a set of instructions that, if executed by a machine, cause the machine to perform a method comprising: setting an operating voltage supplied to a processor based on a mode of operation of said processor.
- 26. The machine-readable medium of claim 25, wherein the instructions result in determining an actual mode of operation of said processor, and wherein the instructions that result in setting result in setting said operating voltage based on said actual mode of operation.
- 27. The machine-readable medium of claim 25, wherein the instructions result in receiving a signal indicating an anticipated mode of operation of said processor, and wherein the instructions that result in setting result in setting said operating voltage based on said signal.